

THE CLAIMS

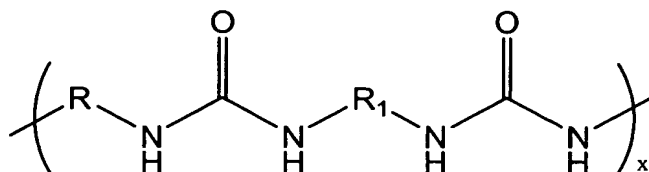
What is claimed is:

- 5 1. A golf ball comprising at least one layer formed from a composition comprising at least one trifunctional component selected from the group consisting of a trifunctional isocyanate, a trifunctional amine-terminated component, or a trifunctional curing agent, wherein the coefficient of restitution changes by about 5 percent or less with a corresponding temperature decrease of 15°F or more.
- 10 2. The golf ball of claim 1, wherein the coefficient of restitution changes by about 3 percent or less with a corresponding temperature decrease of about 45°F or more.
3. The golf ball of claim 1, wherein the coefficient of restitution has no appreciable
15 change with a corresponding temperature decrease of about 60°F or more.
4. The golf ball of claim 1, wherein the golf ball comprises a core and a cover, and wherein the cover is formed of the composition.
- 20 5. The golf ball of claim 4, wherein the cover comprises at least two layers.
6. The golf ball of claim 1, wherein the at least one trifunctional component is selected from the group consisting of an isocyanurate trimer of hexamethylene diisocyanate, an isocyanurate trimer of toluene diisocyanate, an isocyanurate trimer of isophorone
25 diisocyanate, a blend of isophorone diisocyanate and an isocyanurate trimer of isophorone diisocyanate, and mixtures thereof.
7. The golf ball of claim 1, wherein the trifunctional curing agent is selected from the group consisting of propylene-oxide based triamine, ethylene oxide triamine, diethylene
30 triamine, trimethylolpropane-based triamine, glycerin-based triamine, N-(2-aminoethyl)-1,3-propylenediamine, and mixtures thereof
8. The golf ball of claim 1, wherein the composition is thermoset.

9. A golf ball component formed from a composition comprising at least one trifunctional component selected from the group consisting of a trifunctional isocyanate, a trifunctional amine-terminated component, or a trifunctional curing agent, wherein the component has a COR profile that exhibits an increase as temperature decreases from about 70°F to about 20°F.
10. The golf ball component of claim 9, wherein the COR of the golf ball increases by about 7 percent or more with a corresponding temperature decrease of about 15°F or greater.
11. The golf ball component of claim 9, wherein the COR of the golf ball increases by about 15 percent or more with a corresponding temperature decrease of about 30°F or greater.
12. The golf ball component of claim 9, wherein the $\tan \delta$ of the component decreases by about 40 percent or greater when the temperature decreases by about 20°F or more.
13. The golf ball component of claim 9, wherein the at least one trifunctional component is selected from the group consisting of an isocyanurate trimer of hexamethylene diisocyanate, an isocyanurate trimer of toluene diisocyanate, an isocyanurate trimer of isophorone diisocyanate, a blend of isophorone diisocyanate and an isocyanurate trimer of isophorone diisocyanate, and mixtures thereof.
14. A chemical composition for golf balls comprising:
a polyurea prepolymer comprising an isocyanate and an amine-terminated compound; and
a curing agent,
wherein at least one of the isocyanate, amine-terminated compound, or curing agent comprises three functional groups.
15. The chemical composition of claim 14, wherein the composition comprises at least one of a trifunctional isocyanate, a trifunctional polyol, a trifunctional amine-terminated component, a trifunctional hydroxy-terminated curing agent, a trifunctional amine-terminated curing agent, a trifunctional isocyanurate, or combinations thereof.
16. The chemical composition of claim 15, wherein the composition comprises an

isocyanurate trimer of an isocyanate.

17. The chemical composition of claim 14, wherein the composition consists of linkages having the general formula:



wherein x is the chain length, wherein R₁ comprises a straight chain or branched hydrocarbon chain having about 1 to about 20 carbons, a polyether chain, a polyester chain, a polycaprolactone chain, or polycarbonate chain, and wherein R comprises aliphatic, aromatic, or araliphatic hydrocarbons.

18. The chemical composition of claim 14, wherein the composition has a COR profile that exhibits an increase as temperature decreases from about 70°F to about 20°F.

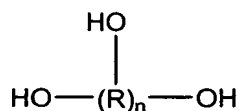
19. The chemical composition of claim 14, wherein the composition has a tan δ profile that exhibits a decrease as temperature decreases from about 70°F to about 20°F.

20. A chemical composition for golf balls comprising:
a polyurethane prepolymer comprising an isocyanate and a polyol; and
a curing agent,
wherein at least one of the isocyanate, polyol, or curing agent comprises three functional groups.

21. The chemical composition of claim 20, wherein the composition comprises at least one trifunctional component selected from the group consisting of a trifunctional isocyanate, a trifunctional polyol, a trifunctional amine-terminated component, a trifunctional hydroxy-terminated curing agent, a trifunctional amine-terminated curing agent, a trifunctional isocyanurate, and combinations thereof.

22. The chemical composition of claim 20, wherein the isocyanate is selected from the group consisting of an isocyanurate trimer of hexamethylene diisocyanate, an isocyanurate trimer of toluene diisocyanate, an isocyanurate trimer of isophorone diisocyanate, a blend of isophorone diisocyanate and an isocyanurate trimer of isophorone diisocyanate, and mixtures thereof.

23. The chemical composition of claim 20, wherein the polyol has the following structure:



wherein R is polyether-based, polyester-based, polycaprolactone-based, or polycarbonate-based, and wherein n is 1 or greater.

24. The chemical composition of claim 23, wherein the polyol comprises a low equivalent weight liquid polycaprolactone triol.

25. The chemical composition of claim 20, wherein the curing agent comprises hydroxyl functional groups, amine functional groups, or combinations thereof.

26. The chemical composition of claim 25, wherein the at least one curing agent has three functional groups.

27. The chemical composition of claim 26, wherein the at least one curing agent is selected from the group consisting of propylene-oxide based triamine, ethylene oxide triamine, diethylene triamine, trimethylolpropane-based triamine, glycerin-based triamine, N-(2-aminoethyl)-1,3-propylenediamine, and mixtures thereof.

28. The chemical composition of claim 20, wherein the composition has at least one of a COR profile that exhibits an increase as temperature decreases from about 70°F to about 20°F, a tan δ profile that exhibits a decrease as temperature decreases from about 70°F to about 20°F, or both.